DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES

Office of Structural Materials Quality Assurance and Source Inspection

Bay Area Branch 690 Walnut Ave.St. 150 Vallejo, CA 94592-1133 (707) 649-5453 (707) 649-5493



Contract #: 04-0120F4

Cty: SF/ALA Rte: 80 PM: 13.2/13.9

File #: 69.28

WELDING INSPECTION REPORT

Resident Engineer: Siegenthaler, Peter **Report No:** WIR-018844 Address: 333 Burma Road **Date Inspected:** 13-Dec-2010

City: Oakland, CA 94607

OSM Arrival Time: 700 **Project Name:** SAS Superstructure **OSM Departure Time:** 1900 **Prime Contractor:** American Bridge/Fluor Enterprises, a JV

Contractor: Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Shanghai, China

CWI Name: CWI Present: Yes Mr. Wang li yang No **Inspected CWI report:** Yes N/A **Rod Oven in Use:** Yes No No N/A N/A **Electrode to specification:** Yes No Weld Procedures Followed: Yes No N/A Yes N/A **Qualified Welders:** No **Verified Joint Fit-up:** Yes No N/A N/A Yes No N/A **Approved Drawings:** Yes No **Approved WPS: Delayed / Cancelled:** Yes No N/A

34-0006 **Bridge No: Component:** Orthotropic Box Girder (OBG)

Summary of Items Observed:

This CALTRANS OSM Quality Assurance Inspector (QA) Surendra Prabhu was present during the times noted above for observations relative to the fabrication of the Self Anchored Suspension (SAS) Superstructure being performed by Zhenhua Port Machinery Company (ZPMC) at Changxing Island, in Shanghai, China. QA observed and/or found the following:

BAY-1

The following Non Destructive Testing (NDT) Inspection carried out as per the ZPMC submitted Notification No. 07757.

Visual Testing (VT)

This QA performed Random VT of the area previously tested and accepted by ZPMC Quality Control (QC) personnel. The members are identified as OBG Cat walk miscellaneous plate weld Components. Total number of components VT Tested: 40 No's. The component designations are review as follows:

- 1. SA7002A, B, C, D, F, G, H, M.N, P
- 2. SA3113D, F, G, H,
- 3. SA3074A, B, C, D, F, G, H, K
- 4. SA7037A, B, C, D, F
- 5. SA3118A, B, C, D, F, G, H, K

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6. SA7001A, B, C, D, F, G, H

This QA received ZPMC inspection notification sheet 07757 to perform dimensional inspection of Traveler Tail (TR) identified as 20TR2-045. Dimensional inspections performed on this traveler rail include, but is not limited to, overall length, beam sweep, beam camber, flange tilt and flange warpage. The results of the inspection were recorded on Caltrans (CT) QA form OBG DCP Hand Measurements survey: Traveler Rails and submitted to CT QA lead for review.

Signed off the following green tag:

1.15418

BAY-3

The following Non Destructive Testing (NDT) Inspection carried out as per the ZPMC submitted Notification No. 07759.

Ultrasonic Testing (UT)

This QA performed UT of approximately 10% of the area previously tested and accepted by ZPMC Quality Control (QC) personnel. This QA generated UT report for this date. The members are identified as OBG Architectural Housing and longitudinal diaphragm plate weld Components. Total number of welds UT Tested: 2 No's. The weld designations are review as follows:

- 1. LD3041-001-413
- 2. AH3151-050.

This QA Inspector Randomly observed the following work in progress:

ZPMC personnel heat straightening OBG member identified as SP3121A. Distortion appeared to be caused by welding of the material. ZPMC Quality Control (QC) inspector identified as Mr. Cui jun jie was present to monitor the heat straightening process. The heat straightening appeared to comply with Heat Straightening Report (HSR) HSR1 (B)-9950.

Flux Cored Arc Welding (FCAW) welding of weld joint AH3151A-132. Welder is identified as 044790. ZPMC Quality Control (QC) is identified as Mr. Zhang yaxu. The welding variables appeared to comply with the Applicable WPS: WPS-B-T-2132-ESAB.

Shielded Metal Arc welding (SMAW) Tack welding of weld joint AH3150A-003. Welder is identified as 058102. ZPMC Quality Control (QC) is identified as Mr. Zhang yaxu. The welding variables appeared to comply with the Applicable WPS: WPS-B-P-2232-TC-U4b.

BAY-8

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The following Non Destructive Testing (NDT) Inspection carried out as per the ZPMC submitted Notification No. 07756.

VT

This QA performed Random VT of the area previously tested and accepted by ZPMC Quality Control (QC) personnel. The members are identified as OBG Bike path weld Components. Inspection was being performed prior to installation of the both cover plates. The bike path number is as follows:

1. BK004A-061

SMAW welding of weld joint BK004A1-062-044. Welder is identified as 066155. ZPMC Quality Control (QC) is identified as Mr. Feng ya jun. The welding variables appeared to comply with the Applicable WPS: WPS-B-P-2211-B-U2.

Unless otherwise noted, all work observed on this date appeared to generally comply with applicable contract documents.

Summary of Conversations:

Only general conversation was held between QA and Quality Control (QC) concerning this project.

Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Eric Tsang 15000422372, who represents the Office of Structural Materials for your project.

Inspected By:	Prabhu,Surendra	Quality Assurance Inspector
Reviewed By:	Hall,Steven	QA Reviewer